

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.(Currently amended) A sigma-delta modulator, comprising:
at least two parallel filters, each receiving an input signal,
an amplifier for ~~controlling-varying~~ a weight associated with an output of ~~each~~
a first filter of the at least two parallel filters with respect to a second filter o the at
least two parallel filters,

an adder connected to an output of the amplifier and a filter output of the
second filter for adding the output and the filtered output to form a weighted output,
and

a quantizer for quantizing ~~a-the~~ weighted output ~~from the at least two parallel~~
filters.

2.(Original) The sigma-delta modulator of Claim 1, wherein an output of said
quantizer is fed back as an input to said at least two parallel filters.

3.(Previously presented) The sigma-delta modulator of Claim 1, wherein at
least one of said at least two parallel filters is a high order filter and at least one of
said at least two parallel filters is a low order filter.

4.(Currently amended) A method of sigma-delta modulation, comprising:
inputting a signal to at least two parallel filters,
using an amplifier for ~~controlling-varying~~ a weight associated with an output of
each a first filter of the at least two parallel filters with respect to a second filter o the
at least two parallel filters,

adding the output and a filtered output of the second filter to form a weighted output, and

quantizing a ~~the~~ weighted output from the ~~at least two parallel filters~~.

5.(Original) The method of Claim 4, wherein an output of said quantizing is fed back as an input to the at least two parallel filters.

6.(Previously presented) The method of Claim 4, wherein at least one of the at least two parallel filters is a high order filter and at least one of the at least two parallel filters is a low order filter.

7.(Previously presented) A signal processing apparatus comprising:
an input for obtaining an input signal,
a sigma-delta modulator as claimed in Claim 1, and
an output unit for providing said output signal.

8.(New) A signal processing apparatus comprising:
a modulator configured to receive a first difference signal and output a modulated signal;
a first subtractor configured to subtract the modulated signal from an input signal to form a second difference signal;
a quantizer configured to quantize the second difference signal and form a quantized output; and
a second subtractor configured to subtract the second difference signal from the quantized output to form the first difference signal.

9.(New) The signal processing apparatus of claim 8, wherein the modulator comprises:
at least two parallel filters, each receiving an input signal;

an amplifier for varying a weight associated with an output of a first filter of the at least two parallel filters with respect to a second filter of the at least two parallel filters;

an adder connected to an output of the amplifier and a filter output of the second filter for adding the output and the filtered output to form a weighted output; and

a further quantizer for quantizing the weighted output.

10.(New) A signal processing apparatus comprising:

a first modulator configured to receive an input signal and output a first modulated signal;

a first subtractor configured to subtract the first modulated signal from the input signal to form a first difference signal;

a filter configured to receive the first difference signal and output a filtered signal;

a delay circuit configured to delay the input signal and output a delayed signal;

an adder configured to add the delayed signal and the filtered signal to form a combined signal; and

a second modulator configured to modulate the combined signal.

11.(New) The signal processing apparatus of claim 10, wherein at least one of the first modulator and the second modulator comprises:

at least two parallel filters, each receiving the input signal;

an amplifier for varying a weight associated with an output of a first filter of the at least two parallel filters with respect to a second filter of the at least two parallel filters;

a further adder connected to an output of the amplifier and a filter output of the second filter for adding the output and the filtered output to form a weighted output; and

a quantizer for quantizing the weighted output.

12.(New) The signal processing apparatus of claim 10, further comprising a further filter connected between the input signal and the first subtractor.